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## Do the LHAASO Galactic diffuse emission data require a contribution from unresolved sources?

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Recently, the LHAASO experiment has obtained a measurement of the gamma-ray diffuse emission in the energy range  $10 - 10^3$  TeV by masking the contribution of known sources.

We calculate the contribution of unresolved sources to the LHAASO measurement using our population study based on the H.E.S.S. Galactic Plane Survey. Remarkably, our model is able to reproduce the number and the total flux produced by observed sources listed in the KM2A catalog within  $2\sigma$ .

We apply the LHAASO masking procedure to both diffuse emission and unresolved sources and further test for possible signatures of a progressive hardening of the cosmic-ray spectrum toward the Galactic center.

We find that the hardening effect and the contribution due to unresolved sources are significantly reduced.

As a result, the LHAASO data above  $\sim 20$  TeV are well described by the truly diffuse emission once all the uncertainties are considered.

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